

WHAT IS CLAIMED IS:

1. An in-vehicle warning system to warn motorists of approaching emergency vehicle comprising;

a global positioning system receiver in said emergency vehicle;

an on-board diagnostic computer receiving the output from said global positioning system receiver and deriving pertinent vehicle data in digital form;

an emergency vehicle transmitter for transmitting a primary audio signal representing pertinent vehicle data and a sub-carrier interrupt;

a radio receiver capable of receiving sub-carrier interrupts in said motorist's vehicle receiving said primary audio signal representing pertinent vehicle data from said emergency vehicle transmitter;

whereby said radio receiver broadcasts an audio warning about the approach of an emergency vehicle.

2. The system according to Claim 1 including a master controller receiving the output from said emergency vehicle on-board diagnostic computer, said master controller generating said primary audio signal to be sent by said transmitter.

3. The system according to Claim 2 including a dash-board based indicator in said motorist's vehicle for indicating the approach of an emergency vehicle.

4. The system according to Claim 3 in which said dashboard based indicator is an icon that is illuminated when an output from said emergency vehicle transmitter is received.

5. The system according to Claim 4 in which said icon is brightly illuminated letters "EV" on a dashboard display.

6. The system according to Claim 4 in which dash-based visual indicator includes icons around a central icon that indicate relative position of an emergency vehicle.

7. The system according to Claim 6 in which said central icon is a brightly illuminated "EV".

8. The system according to Claim 7 in which said icons around said central icon comprise a plurality of dots in a circle around said central icon.

9. The system according to Claim 8 in which said plurality of dots around said central icon comprises eight brightly illuminated dots equally spaced in a circle around said central icon.

10. The system according to Claim 9 in which at least one of said dots is illuminated to indicate the relative position of an emergency vehicle.

11. An in-vehicle emergency warning system comprising;  
an on-board computer in said emergency vehicle;

a global positioning system transceiver connected to said emergency on-board computer for calculation of relative position of said emergency vehicle;

a master controller receiving the output from said emergency vehicle on-board diagnostic computer;

a transmitter on said emergency vehicle, said transmitter receiving and transmitting audio and data signals from said master controller on a pre-selected sub-carrier frequency to a motorist's vehicle;

a radio in said motorist's vehicle capable of receiving an interrupt signal to interrupt standard broadcasts and receive audio and data from said emergency vehicle;

said emergency vehicle transmitter transmitting an interrupt signal to interrupt standard broadcasts on said motorist's radio and an audio signal alerting a motorist of an approaching emergency vehicle.

12. The system according to Claim 11 in which;

said emergency vehicle transmitter receiving position information from said global positioning system and on-board computer to a master controller; said master controller selecting and delivering an appropriate emergency audio signal representing the position of an emergency vehicle relative to a motorist's vehicle to said transmitter;

whereby said emergency audio signal is heard by said motorist over speakers connected to said radio.

13. The system according to Claim 11 in which said emergency vehicle on-board computer calculates emergency vehicle information from data received from said global positioning system; said position information being delivered to a master controller; said master controller deriving pertinent information from said on-board diagnostic computer output and generating an output to said transmitter; said transmitter an audio primary frequency and a data sub-carrier frequency to said motorist's radio.

14. A method of warning motorists of the approach of emergency vehicles comprising;

deriving pertinent emergency vehicle information by an on-board diagnostic computer connected to a global positioning system receiver;

processing a data stream from said on-board diagnostic computer in a master controller;

transmitting information generated by said master controller to a motorist's radio capable of receiving sub-carrier interrupts;

whereby said sub-carrier interrupt capable radio broadcasts an audio message warning a motorist of an approaching emergency vehicle.

15. The method according to Claim 14 wherein said emergency vehicle on-board diagnostic computer derives pertinent information regarding vehicle speed, location and position.

16. The method according to Claim 14 wherein said information transmitted from said emergency vehicle to said motorist's radio comprises a primary audio frequency and a data sub-carrier frequency.

17. The method according to Claim 14 including a visual indicator for indicating the approach of an emergency vehicle on a dash-based visual display.

18. The method according to Claim 17 in which said dash-board visual display illuminates an icon to indicate the approach of an emergency vehicle.

19. The method according to Claim 18 in which said dash-board visual display illuminates one of a plurality of dots in a circle around said icon to indicate the relative position of an emergency vehicle.

20. The method according to Claim 19 in which said illuminated icon on said dashboard visual display is a large "EV" icon.